

Title (en)
HYDRAULIC SLIDE BEARING UNIT

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Application
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Priority
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Abstract (en)
[origin: US4583870A] A hydrodynamic slide bearing unit has two relatively movable surfaces between which there is built up in a lubricant layer at least one load-bearing pressure zone within which the pressure (p) during one revolution in the direction of movement will increase from an initial pressure (po) at the forward portion of the pressure zone to a higher pressure (pm) around the most central part of the pressure zone and decrease again to the initial pressure (po), the slide bearing having at least one feed opening for lubricant at or ahead of that portion of the pressure zone which is foremost as counted in the direction of movement or flow, and an outtake means for collection of lubricant with a pressure higher than the initial pressure (po), the lubricant being fed back via a return means to the lubricant layer through a feed opening, whereby the pressure difference will produce a pump effect for circulation of lubricant through the lubricant layer. According to the invention the outtake means comprises long, pressure-relieving openings situated downstream of the feed opening on the sides of the pressure zone and generally extending in the direction of movement, in order to relieve those portions of the bearing surfaces which are situated outside the relief openings from the higher pressure (pm) prevailing in the hydrodynamic bearing and thus eliminate the leakage flow perpendicular to the flow direction and return it to the feed opening.

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